Manitoba
Agriculture

GUIDELINES FOR ESTIMATING
HONEY PRODUCTION COSTS

Information Update

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This guide is designed to provide planning information and a format for calculating cost of honey production for a 1,000-hive beekeeping enterprise.

This "model" enterprise incorporates indoor wintering into its management practice and does not require package bees for replacement stock annually.

When interpreting these costs for an individual situation, adjustments may be required due to differences in management practices and facilities. Each assumption must be examined and adjusted where necessary.

The production costs included in this enterprise budget are not intended as a cost study of the beekeeping industry in Manitoba.

Mention of a proprietary product does not constitute an endorsement.

MG-15396

HONEY PRODUCTION COSTS

A. OPERATING COSTS	$/Colony	Cost/lb	Your Farm
1. Feed Costs:			
1.01 Sugar Syrup	$ 20.16	$0.1120	
1.02 Pollen Supplement	0.28	0.0016	
Total Feed Cost	$ 20.44	0.1136	
2. Other Operating Costs:			
2.01 Vet. Medicine & Supplies	1.23	0.0068	
2.02 Stock Replacement	2.25	0.0125	
2.03 Fuel	3.00	0.0167	
2.04 Machinery, Mtce. & Supplies	2.20	0.0122	
2.05 Building Mtce. & Repairs	3.60	0.0200	
2.06 Utilities	2.80	0.0156	
2.07 Barrels	4.28	0.0238	
2.08 Bldg. Vehicle & Liability Ins.	2.31	0.0128	
2.09 Crop Insurance	1.50	0.0083	
2.10 Small Tools, Equip. & Supplies	0.25	0.0014	
2.11 Memberships & Associations	0.20	0.0011	
2.12 Miscellaneous Costs	1.50	0.0083	
Subtotal Operating Costs	45.56	0.2531	
2.13 Operating Interest	1.82	0.0101	
TOTAL OPERATING COSTS	**$ 47.38**	**$0.2632**	
B. FIXED COSTS			
3. Depreciation			
3.01 Buildings	$ 3.66	$0.0203	
3.02 Machinery & Equipment	6.32	0.0351	
3.03 Hives	1.80	0.0100	
4. Investment			
4.01 Buildings	$ 4.46	0.0248	
4.02 Machinery & Equipment	3.46	0.0192	
4.03 Hives	1.76	0.0098	
4.04 Bees	2.80	0.0156	
TOTAL FIXED COSTS	**$ 24.26**	**$0.1348**	
TOTAL OPERATING AND FIXED COSTS	**$ 71.64**	**$0.3980**	
5. Labour	$ 24.00	$0.1333	
TOTAL COST OF PRODUCTION	**$ 95.64**	**$0.5313**	
TOTAL BREAKEVEN PRICE ($/lb. of honey)	**$0.53**		
Operating Costs	$0.26		
Fixed Costs	$0.12		
Labour Costs	$0.14		

Breakeven Price/lb. = Production Cost ÷ lbs. of Honey/Colony

ASSUMPTIONS

HONEY PRODUCTION COSTS

1. This budget outlines the cost of honey production.
2. Wax and the sale of bees were not considered.

OPERATION PROFILE

	TOTAL
Number of Hives	1,000
Market Value per Hive	$40
Average Number of lbs. of Honey/Hive	180
Value of Bees per Hive	$35

FEED COSTS

	TOTAL
SUGAR SYRUP:	
Number of kg of sugar per sugar syrup feeding	10.34
POLLEN SUBSTITUTE:	
Amount of sugar/hive (kg)	0.15
Cost per kg of Sugar	$0.65
Amount of soybean flour/hive (kg)	0.15
Cost per kg of soybean flour	$1.19
Feedings (on a pail per hive basis):	
Number of Spring Feedings	1
Number of Fall Feedings	2

FOOTNOTE: Feeding implies the number of pails per colony.
1 kilogram (kg) = 2.2046 pounds (lbs.)
1 tonne (t) = 1,000 kg

CAPITAL COSTS:

	Useful Life (Years)	Value	Salvage Value (%)
Buildings:			
Wintering Complex - includes heating & ventilation equipment	25	$ 50,000	10
Honey House, Warehouse & Vehicle Storage - includes heating, ventilation equipment, plumbing & loading dock	25	$ 50,000	10
Well	25	$ 1,500	0
Total Building Value		**$101,500**	
Machinery & Equipment:			
1/2 Ton Truck	10	$ 15,000	20
5 Ton Truck - includes trailer	10	$ 18,000	20
Rough Terrain Forklift	15	$ 12,500	15
Extracting & Other Equipment	15	$ 25,000	30
Total Machinery & Equipment		**$ 70,500**	
Total Value of Hives	20	$ 40,000	10
Total Spring Value of Bees		$ 35,000	
Total Building, Machinery & Equipment, Hives & Bee Value		**$247,000**	

WORKSHEET

HONEY PRODUCTION COSTS

A. OPERATING COSTS — Your Farm

1. Feed Costs:

1.01 Sugar Syrup Mixture

Spring Feed Cost:

	10.34	kg sugar/feeding	
X	$ 0.65	/kg sugar	
=	$ 6.72	Sugar cost per feeding	
X	1	Number of Pails per Colony	
=	**$ 6.72**	**Spring Feed Cost/Colony**	

Fall Feed Cost:

	10.34	kg sugar/feeding	
X	$ 0.65	/kg sugar	
=	$ 6.72	Sugar cost per feeding	
X	2	Number of Pails per Colony	
=	**$ 13.44**	**Fall Feed Cost/Colony**	

1.02 Pollen Substitute

	0.15	kg sugar/feeding	
X	$ 0.65	/kg sugar	
=	**$ 0.10**	**Sugar Cost/Feeding**	
	0.15	kg soybean flour/feeding	
X	$ 1.19	/kg	
=	**$ 0.18**	**Soybean Flour Cost**	

TOTAL FEED COST:

	$ 6.72	Spring Feed Cost	
	$ 13.44	Fall Feed Cost	
	$ 0.10	Sugar Cost	
	$ 0.18	Soybean Flour Cost	
=	**$ 20.44**	**Total Feed Cost/Colony**	

Your Farm

2. Other Operating Costs:

2.01 Veterinary Medicine & Supplies

TERRAMYCIN

	5	g/colony/treatment	
X	$ 0.01	/g of Terramycin	
=	**$ 0.05**	**Terramycin Cost/Colony/Treatment**	
	25	g icing sugar/colony/treatment	
X	$0.00055	/g of icing sugar	
=	**$ 0.01**	**Icing Sugar Cost/Colony/Treatment**	
	$ 0.06	Ingredient Cost	
X	4	Treatments	
=	**$ 0.24**	**Terramycin Treatment Cost/Colony**	

FUMIDIL B

	20	Bottles of Fumidil B	
X	$ 49.45	/bottle	
=	$989.00		
÷	1,000	/bottle	
=	**$ 0.99**	**Fumidil Treatment Cost/Colony**	

Total Veterinary Medicine & Supplies Cost:

	$ 0.24	Terramycin Cost	
+	$ 0.99	Fumidil B Cost	
=	**$ 1.23**	**Vet. & Medicine Cost/Colony**	

2.02 Stock Replacement Due to Winter Loss

	250	Replacement Queens	
X	$ 9.00	/queen	
÷	1,000	Colonies	
=	**$ 2.25**	**Queen Replacement Cost/Colony**	

2.03 Fuel

	$ 3,000	Total Cost of Fuel	
÷	1,000	Colonies	
=	**$ 3.00**	**Fuel Costs/Colony**	

Your Farm

2.04 Machinery, Maintenance & Supplies

Vehicle Maintenance is assumed to be 5% of capital, and is charged annually.

5 Ton Truck With Trailer:

	$18,000	Capital Cost	_____
-	$ 3,600	Salvage Value	_____
=	$14,400		_____
X	0.05		_____
÷	1,000	Colonies	_____
=	**$ 0.72**	**/Colony**	_____

1/2 Ton Truck:

	$15,000	Capital Cost	_____
-	$ 3,000	Salvage Value	_____
=	$12,000		_____
X	0.05		_____
÷	1,000	Colonies	_____
=	**$ 0.60**	**/Colony**	_____

Forklift:

	$12,500	Rough Terrain Forklift	_____
-	$ 1,875	Salvage Value	_____
=	$10,625		_____
X	0.05		_____
÷	1,000	Colonies	_____
=	**$ 0.53**	**/Colony**	_____

Miscellaneous Equipment:

	$25,000	Capital Cost	_____
-	$ 7,500	Salvage Value	_____
=	$17,500		_____
X	0.05		_____
÷	1,000	Colonies	_____
=	**$ 0.35**	**/Colony**	_____

Total Machinery, Maintenance & Supplies:

	$ 0.72	5 Ton Truck With Trailer	_____
	$ 0.60	1/2 Ton Truck	_____
	$ 0.53	Forklift	_____
+	$ 0.35	Miscellaneous Equipment	_____
=	**$ 2.20**	**/Colony**	_____

Your Farm

2.05 Building Maintenance & Repairs

Building Maintenance & Repairs are charged annually as a percentage of net capital cost at a rate of 4%.

Wintering Complex:

	$50,000	Building Value	
-	$ 5,000	Salvage Value	
=	$45,000		
X	0.04		
÷	1,000	Colonies	
=	$ 1.80	/Colony	

Honey House, Warehouse, Vehicle Storage:

	$50,000	Building Value	
-	$ 5,000	Salvage Value	
=	$45,000		
X	0.04		
÷	1,000	Colonies	
=	$ 1.80	/Colony	

Total Building Maintenance & Repairs:

	$ 1.80	Wintering Complex	
+	$ 1.80	Honey House, etc.	
=	$ 3.60	/Colony	

2.06 Utilities

	$ 2,000	Hydro Cost	
+	$ 800	Telephone Cost	
÷	1,000	Colonies	
=	$ 2.80	/Colony	

2.07 Barrels

	$ 4,275	Total Barrel Cost	
÷	1,000	Colonies	
=	$ 4.28	/Colony	

Your Farm

2.08 Insurance

	$254,000	Total Capital Invested	_____
X	0.75	Insurance Rate/$100	_____
÷	100		_____
=	$ 1,905	Total Insurance Cost	_____
÷	1,000	Colonies	_____
=	$ 1.91	**Building Insurance/Colony**	_____

	$ 400	Total Vehicle Insurance	_____
÷	1,000	Colonies	_____
=	$ 0.40	**Vehicle Insurance/Colony**	_____

$1.50 Crop Insurance/Colony _____

2.09 Small Tools, Equipment & Supplies

	$ 250	Total Yearly Cost	_____
÷	1,000	Colonies	_____
=	$ 0.25	**/Colony**	_____

2.10 Memberships & Associations

	$ 200	Total Yearly Cost	_____
÷	1,000	Colonies	_____
=	$ 0.20	**/Colony**	_____

2.11 Miscellaneous Costs

	$ 1,500	Total Yearly Cost	_____
÷	1,000	Colonies	_____
=	$ 1.50	**/Colony**	_____

2.12 Operating Interest

	$ 45.56	Annual Operating Costs	_____
÷	2		
X	8	Bank Rate on Deposits	_____
=	$ 1.82	**/Colony**	_____

B. FIXED COSTS

3. Depreciation:

3.01 Buildings:

Wintering Complex:

	$ 50,000	Original Value	_____
-	$ 5,000	Salvage Value	_____
÷	25	Years Useful Life	_____
÷	1,000	Colonies	_____
=	$ 1.80	**/Colony**	_____

		Your Farm
Honey House, Warehouse & Vehicle Storage:		
$ 50,000	Original Value	_____
- $ 5,000	Salvage Value	_____
÷ 25	Years Useful Life	_____
÷ 1,000	Colonies	_____
= $ 1.80	/Colony	_____
Well:		
$ 1,500	Original Value	_____
- $ 0	Salvage Value	_____
÷ 25	Years Useful Life	_____
÷ 1,000	Colonies	_____
= $ 0.06	/Colony	_____
Total Building and Depreciation:		
$ 1.80	Wintering Complex	_____
$ 1.80	Honey House, Warehouse, Vehicle	_____
+ $ 0.06	Well	_____
= $ 3.66	/Colony	_____

3.02 **Machinery & Equipment**

1/2 Ton Truck:		
$ 15,000	Original Value	_____
- $ 3,000	Salvage Value	_____
÷ 10	Years Useful Life	_____
÷ 1,000	Colonies	_____
= $ 1.20	/Colony	_____
5 Ton Truck:		
$ 18,000	Original Value	_____
- $ 3,600	Salvage Value	_____
÷ 10	Years Useful Life	_____
÷ 1,000	Colonies	_____
= $ 1.44	/Colony	_____
Rough Terrain Forklift:		
$ 12,500	Original Value	_____
- $ 1,875	Salvage Value	_____
÷ 15	Years Useful Life	_____
÷ 1,000	Colonies	_____
= $ 0.71	/Colony	_____

Your Farm

Extracting & Other Equipment:

$ 25,000	Original Value	_____
- $ 7,500	Salvage Value	_____
÷ 15	Years Useful Life	_____
÷ 1,000	Colonies	_____
= $ 1.17	/Colony	_____

3.03 Hives

$ 40,000	Original Value	_____
- $ 4,000	Salvage Value	_____
÷ 20	Years Useful Life	_____
÷ 1,000	Colonies	_____
= $ 1.80	/Colony	_____

Total Machinery & Equipment Depreciation:

$ 1.20	1/2 Ton Truck	_____
$ 1.44	5 Ton Truck	_____
$ 0.71	Rough Terrain Forklift	_____
$ 1.17	Extracting & Other Equipment	_____
+ $ 1.80	Hives	_____
= $ 6.32	/Colony	_____

4. Investment:

4.01 Buildings

$101,500	Total Building Value	_____
+ $ 10,000	Total Building Salvage Value	_____
÷ 2		_____
X 0.08	Bank Rate on Deposits	_____
÷ 1,000	Colonies	_____
= $ 4.46	/Colony	_____

4.02 Machinery & Equipment

$ 70,500	Total Machinery & Equipment Value	_____
+ $ 15,975	Total Machinery & Equipment Salvage	_____
÷ 2		_____
X 0.08	Bank Rate on Deposits	_____
÷ 1,000	Colonies	_____
= $ 3.46	/Colony	_____

Your Farm

4.03 Hives

	$40,000	Total Colony Value
+	$ 4,000	Salvage Value
÷	2	
X	0.08	Bank Rate on Deposits
÷	1,000	Colonies
=	**$ 1.75**	**/Colony**

4.04 Bees

	$ 35.00	Bee Investment/Colony
X	0.08	Bank Rate on Deposits
=	**$ 2.80**	**/Colony**

Total Investment Costs:

	$ 4.46	Building Investment
	$ 3.46	Machinery & Equipment Investment
	$ 1.76	Hive Investment
+	$ 2.80	Bee Investment
=	**$ 12.48**	**/Colony**

5. Labour

	$ 3.00	Hours/colony
X	$ 8.00	/hour
=	**$24.00**	**/Colony**

FOR MORE INFORMATION SEE YOUR LOCAL MANITOBA AGRICULTURE OFFICE.

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